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(54) **HIGH BREAKDOWN STRENGTH
SEMICONDUCTOR ELEMENT**

density, and this p-type layer 3 is surrounded by a p-type layer (reserve layer 4) of low concentration.

(57) Abstract:

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PROBLEM TO BE SOLVED: To provide a terminal structure suitable for a vertical superjunction structure, and to realize a high breakdown strength superjunction.

SOLUTION: Stripe-shaped p-type layers 1 and n-type layers 2 constituting a vertical superjunction structure are formed alternately, and the number is set odd-numbered. Also the integrated values of the carrier density in the layer thickness direction of the p-type layers except the two p-type layers 1 arranged at the outermost sides and the n-type layers 2 are set so as to be substantially the same, and the integrated value of the carrier density in the layer thickness direction of the two p-type layers 1 arranged at the outermost sides is set to be almost half that of the other p-type layers 1 and the n-type layers 2. Then the upper edge of the stripe-shaped p-type layers 1 and n-type layers 2 is brought into contact with a p-type layer 3 with high

